NMFS FISHERIES OBSERVER PROGRAM
CATCH ESTIMATION WORKSHEET

OBS/TRIP ID	**A13012 -**
DATE LANDED mm/yy	**10 / 06**
HAUL #	**8**

FISHING METHOD		CATCH ESTIMATION METHOD		** CATCH SHAPE, MEASUREMENTS & VOLUME
Picked	1 **X**	Weighed (Actual)	1 ___	Comment and draw catch shape.
Shoveled	2 ___	Volume to Volume	2 ___	
Deckloaded	3 ___	Basket or Tote Count	3 ___	
Conveyor System	4 ___	Captain	4 ___	Rect./square (L x W x D) 1 **X** L **7** W$_1$ **4.50** D **1.20** = V **37.80** ft^3
Combination (comment)	8 ___	Tally	5 ___	Trapezoidal ([(W$_1$ + W$_2$)]/2xLxD) 2 ___ L ___ W$_1$ ___ W$_2$ ___ D ___ = V ___ ft^3
Other (comment)	9 ___	Visually Estimated	6 ___	Triangular (L x W / 2 x D) 3 ___ L ___ W ___ D ___ = V ___ ft^3
_____		Cumulative Sum Method	7 ___	Circular (π r^2 x D) 4 ___ r ___ D ___ = V ___ ft^3
HAUL NUMBERS WHERE		Combination (comment)	8 **X**	Oval (r$_1$ x r$_2$ x π x D) 5 ___ r$_1$ ___ r$_2$ ___ D ___ = V ___ ft^3
DECKLOADING OCCURRED		Other (comment)	9 ___	Other/Combination (comment) 9 ___ _____
_____		____**1, 2, 3 & 5**____		Are measurements the same as previous haul? NO 0 _**X**_ YES 1 ___

** # SUBSAMPLING	** VOL SUBSAMPLE CONTAINER		** TOTAL SUBSAMPLE VOLUME =	** SAMPLE WEIGHT MULTIPLIER	** PERCENT SUBSAMPLED	Volume of Subsample	Circular Shapes
CONTAINERS USED	Orange Basket	1 **X** _ 1.47 ft^3	# subsample containers used x	total catch vol / total subsamp vol	(total subsamp vol / total catch)	1 Basket = 1.47 ft^3	r = radius
	Fish Tote	2 ___ 2.65 ft^3	volume of a subsample container		vol) x 100	2 Baskets = 2.94 ft^3	r = diameter / 2
	Other	9 ___ ft^3				3 Baskets = 4.41 ft^3	r$_1$ = short radius
12			**17.64** ft^3	**2.14**	**46.67** %	4 Baskets = 5.88 ft^3	r$_2$ = long radius
						5 Baskets = 7.35 ft^3	π = 3.14

** SPECIES	** SUBSAMP WGT (lbs)	** SPECIES	** SUBSAMP WGT (lbs)	COMMENTS
				Angular Shapes / **Trapezoidal Shapes**
Skate, Little	**400**			A = area / W$_1$ = short width
				V = volume / W$_2$ = long width
Skate, Thorny	**82**			W = width
				D = catch depth
Skate, Winter	**164**			**Took actual weights of Yellowtail Fldr, Haddock discards, Atl Cod discards, Barndoor Skates, Silver Hake, Lumpfish, and Longhorn Sculpin.**
Ocean Pout	**75**			
Crab, Jonah	**45**			**Took actual weights of almost all kept species, except Haddock - used basket count method. See haul log.**
				71 lbs Haddock (average weight per basket 70 lbs, 71 lbs, 72 lbs / 3)
Am. Lobster	**38**			**71 lbs x 9 baskets = 639 lbs + 30 lbs (actually weighed) = 669 lbs. (previously tared basket weight).**
Shells, NK	**20**			**Most actual weights based on priorities (Yellowtail fldr, Haddock, & Atl Cod).**
Atl Mackerel	**31**			**Subsampled lower priority fish and discarded crustaceans due to time constraints.**
Atl Herring	**49**			**Some Spiny Dogfish stuck in trawl net, tossed by crew, estimated using tally method.**
				Took 20% of tally and obtained an average weight.
				12 individual Dogfish taken randomly out of 60 (20%)
				6, 6, 7, 6.5, 7, 7, 8.5, 8, 8, 7, 5, 8 lbs = 7 lbs average weight
				60 x 7 lbs each = 420 lbs

** Required only when using the volume to volume method.